

REMARKS

Claims 1-7 are pending in the application. In the Office Action, Claims 1, 2, 3, 5 and 7 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,561,710 (Helms) in view of U.S. Patent No. 5,812,659 (Mauney et al.); Claim 4 was rejected under 35 U.S.C. §103(a) in view of Helms and Mauney et al. in view of U.S. Patent No. 6,149,116 (Won); and Claim 6 was rejected under 35 U.S.C. §103(a) in view of Helms and Mauney et al. in view of U.S. Patent No. 3,757,048 (McAvoy et al.).

Claims 1 and 5 have been amended to clarify the claimed invention and Claim 7 was amended to add a period at the end of the claim.

Claims 1, 2, 5 and 7 are the pending independent claims. Each independent claim was rejected as allegedly being unpatentable over the combination of Helms and Mauney et al.

The amendment to Claim 1 clarifies that the subject invention relates to *a detachable keypad* that generates a DTMF signal when *the keypad is detached and a key is pressed*. The amendment to Claim 5 clarifies that the subject invention also relates to a detachable keypad, which generates a DTMF signal *if pressing of the key is sensed while the keypad is detached*.

In contrast, neither Helms nor Mauney et al. discloses a detachable keyboard. Helms discloses an interactive voice communication terminal that has a fixed keypad (see, e.g. item 14 of FIGs. 1-3). The Examiner alleged that “Helms shows a detachable keypad (10)” (Office Action, page 2). To the contrary, item 10 of Helms is “the communications terminal 10” itself (Col. 3, lines 51). Nowhere does Helms disclose or suggest that its keypad (14) is detachable.

Mauney et al. is the other reference cited by the Examiner in regard to the rejection of Claims 1 and 5. Mauney et al. discloses an ear-mounted microphone that includes a microphone compartment (see items 47a and 47b of FIG. 3). Like Helms, Mauney et al. entirely fails to disclose or suggest a detachable keypad.

Mauney et al. is the other reference cited by the Examiner in regard to the rejection of Claims 1 and 5. Mauney et al. discloses an ear-mounted microphone that includes a microphone compartment (see items 47a and 47b of FIG. 3). Like Helms, Mauney et al. entirely fails to disclose or suggest a detachable keypad.

The other pending independent claims are Claims 2 and 7. Like Claims 1 and 5, Claim 7 recites “a detachable keypad.” Further, Claims 2 and 7 each recite an audio/DTMF separator *for separating a signal received at the microphone into an audio signal and a DTMF signal*. Neither the combination of Helms and Mauney et al., nor any of the other cited references disclose or suggest such an audio/DTMF separator.

At page 3 of the Office Action, the Examiner alleged that Helms discloses an “audio/DTMF separator and a controller for analyzing the DTMF signal (in 44).” To the contrary, FIGS. 7A-7C of Helms show item 44 as being a “phone base,” which can connect the communications terminal (82) and handset (26) to the public switched telephone network (PSTN) by various configurations thereof. However, none of the configurations disclosed by Helms discloses or suggests that item 44 (or any other element disclosed by Helms) *separates a signal received at the microphone into an audio signal and a DTMF signal*. Rather, the DTMF generator (36) of Helms is used “to drive the transducer 22” (Col. 4, lines 21-22). The output of the DTMF generator (36) is utilized “to receive the processed data from the controller 32 and output it in as expedient a manner as possible” (Col. 5, lines 5-7). The expedited DTMF output taught by Helms fails to disclose or suggest any need to *separate a signal received at the microphone into an audio signal and a DTMF signal*.

In contrast to the device disclosed by Helms, the invention of the pending claims separates the signals to allow its keypad to function in lieu of a mouse (Specification, top of page 2), and allows a user to control the operation of a mobile terminal by the DTMF signal input into microphone.

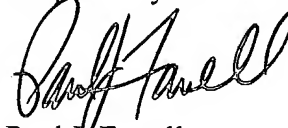
Further, in regard to dependent Claim 3, at the bottom of page 6 the Examiner alleged

that the combination of Helms and Mauney et al. shows "a display (12); the controller (32); the DTMF signals (36)." The Examiner failed to provide any description as to how the cited references allegedly render Claim 3 unpatentable. It is assumed that numerals 12, 32 and 36 refer to Helms rather than Mauney et al. However, Claim 3 specifically recites that the *controller analyzes the DTMF signal and if the DTMF signal represents a digit or a character, the controller controls the display to display the digit or character*. Nowhere does Helms, Mauney et al. or any other cited reference disclose or suggest displaying the digit or character based on analysis of the DTMF signal.

Independent Claims 1, 2, 5 and 7 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 3, 4 and 6, these are likewise believed to be allowable by virtue of their dependence on their respective amended independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 3, 4 and 6 is respectfully requested.

Accordingly, all of the claims pending in the Application, namely, Claims 1-7, are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,



Paul J. Farrell
Reg. No. 33,494
Attorney for Applicant

DILWORTH & BARRESE
333 Earle Ovington Blvd.
Uniondale, New York 11553
Tel: (516) 228-8484
Fax: (516) 228-8516
PJF/VAG